Amendment to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1. (currently amended) An apparatus for controlling the injection of fuel in a turbine engine having a engine shaft and a combustion chamber, said apparatus comprising:

a) at least four fuel injectors ~~selectable~~ selectably arranged in independent groups for delivering fuel in pulses to said combustion chamber of said turbine engine;

b) at least one operating sensor, said sensor having means for receiving sensor signals from a selected operating function of said turbine engine;

c) a programmable electronic control unit for receiving and comparing the value of said sensor signals from said turbine engine to the value of a desired signal, and for generating fuel injector control signals to said selectable groups of injectors, independently from each other and staggered in time, in response thereto; and

d) a means for directing said fuel injector control signals to said selected fuel injector groups to modify the pulse duration and/or frequency of said fuel injector groups in response to a deviation from desired engine speeds caused by variable operating loads encountered by said turbine engine.

2. (previously presented) The apparatus of claim 1 wherein said selected fuel injector groups each atomizes the fuel supplied to individual injectors within said group and delivers said fuel in pulses from each injector within said group as a fine mist directly into said combustion chamber at the point of utilization.

3. (currently amended) The apparatus of claim 1 wherein the fuel injectors ~~may be~~ are selectively divided into groups by the programmable electronic control unit with an equal number of ~~said~~ fuel injectors in each group.

4. (previously presented) The apparatus of claim 1 wherein at least one said operating sensor receiving input from a selected operating function of said turbine engine is utilized to control the pulse width and/or frequency of said selected groups of fuel injectors.

5. (previously presented) The apparatus of claim 1 in which the programmable electronic control unit consists of a group comprising a microprocessor and a microcomputer to control said selected injector groups.

6. (previously presented) The apparatus of claim 1 in which the orientation of said selected injectors penetrating said combustion chamber of said turbine is parallel to the axis of said turbine engine's shaft or displaced at some angle from the axis of said turbine shaft.

7. (previously presented) A method for controlling the injection of fuel in pulses by selectable groups of injectors in a turbine engine having a engine shaft and a combustion chamber and having at least four fuel injectors arranged in groups and at least one sensor for sensing operating signals from said engine, said method comprising the steps of:

a) sensing at least one operating sensor signal from said turbine engine using said sensor;

b) receiving and comparing with a programmable electronic control unit the value for said sensor signals from said turbine engine to the value of a desired signal and generating with said electronic control unit fuel injector control signals to said selected groups of injectors in response thereto;

c) directing said fuel injector signals to said selected groups of fuel injectors to

modify the pulse duration and/or frequency of fuel injection of said groups independently from each other in response to a deviation from desired engine operating parameters caused by variable operating loads encountered by said turbine engine; and

c) delivering fuel in pulses to said combustion chamber using said selected groups of fuel injectors;

8. (previously presented) The method of claim 7 wherein said operating sensor signal is generated from a selected parameter of said turbine engine.

9. (previously presented) The method of claim 7 wherein said step of generating control signals to selected groups of injectors by said programmable electronic control unit is accomplished using a pulse width modulation system comprising at least one of a microprocessor and a microcomputer.

10. (previously presented) The method of claim 7 wherein said turbine engine comprises at least two selected groups of fuel injectors utilizing at least two injectors in each group.

11. (previously presented) The method of claim 7 wherein the injectors in each selected group are equally distributed radially around the combustion chamber.

12. (previously presented) The method of claim 7 wherein said selected injectors are arranged to penetrate the combustion chamber of said turbine engine either parallel to the axis of the shaft of said turbine engine or displaced at some angle from the axis of said turbine shaft.

13. (previously presented) The method of claim 7 in which the fuel injector signals to each group are staggered in time.

14. (previously presented) The apparatus of claim 1 in which the injectors in each selected group are equally distributed radially around the combustion chamber.

15. (new) The method of claim 7 in which two groups of fuel injectors are used, when the load is less than 50%, the fuel injectors deliver no fuel to the combustion chamber for short intervals of time.

16. (new) The method of claim 7 in which no fuel is delivered to the combustion chamber for short intervals of time when the load is less than 100%/N where N is the number of injector groups being used.

AMENDMENT TO THE DRAWINGS

The attached 2 sheets of drawings includes new Figures 6A and 6B. These drawings are submitted in response to the Examiner's requirements for drawings that show the various features claimed.

Attachment: New Drawing Sheets